
Water Quality Standards Database Tutorial

The Water Quality Database (WQSDB) contains water quality standards information for states, tribes and U.S. Territories. This includes information about designated uses, classifications, and numeric criteria for a state's surface waters, along with maps and reports. This tutorial is designed to help you use the WQSDB to retrieve water quality standards information that is of interest to you.

➤ Log on to the WQSDB website at the following URL: <http://www.epa.gov/wqsdatabase>

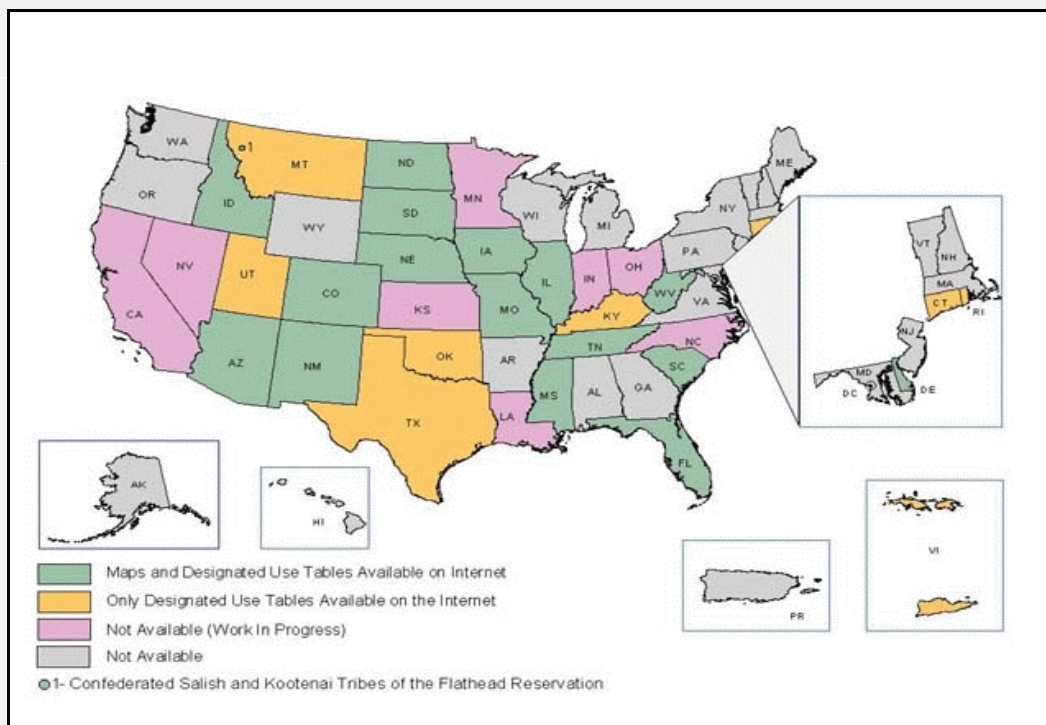
When you log on to the WQSDB you will see six menu options. This is the single point of access to EPA and state water quality standards information. Take time to view the Overview section, which contains a lot of background information about the WQSDB. The mapping option will link you to the EPA's Enviromapper, where you can search and view valuable geographic information for water quality standards data. In this tutorial you will learn how to retrieve reports and documents for water quality standards information.



Creating a Designated Use Report

In this first exercise you are going to create a designated use report. These reports allow you to view the designated use information for a selected state.

1. Click on the **Reports** button from the main WQSDB menu. You can choose from six different types of water quality reports that allow you to view water quality standards information for one particular state, multiple states, and at a national level.
2. Next, click on the **Designated Use and Waterbody Data by State** link.
3. Click on the state in the map that you are interested in. Only the states in green and orange have reports available.



You can produce a report for one specific designated use (DU), or you can run a report for all the DU's within a state. You can also generate reports based on all of the Waterbody names, or only select waterbodies.

4. Scroll through the list of Designated Uses and select one or more State Designated Uses. Hold the control (Ctrl) key down and click your left mouse to select multiple uses.

State Designated Use:

Aesthetic
Agricultural Water Supply
Cold Water Aquatic Life
Domestic Water Supply

5. Next select one or more waterbody names. Hold the (Ctrl) key and click your left mouse button to select more than one name.

Waterbody Name:

ALKALI CREEK - SOURCE TO MOUTH
ALLISON CREEK - SOURCE TO MOUTH
ALLISON CREEK - SOURCE TO WEST FORK ALLISON CREEK
ALLISON CREEK - WEST FORK ALLISON CREEK TO MOUTH
ALPINE CREEK - SOURCE TO MOUTH
ALTURAS LAKE
ALTURAS LAKE CREEK - ALTURAS LAKE TO MOUTH
ALTURAS LAKE CREEK - SOURCE TO ALTURAS LAKE
AMERICAN FALLS RESERVOIR (SNAKE RIVER)
AMERICAN RIVER - EAST FORK AMERICAN RIVER TO MOUTH

Run Report Reset

6. Now click on the **Run Report** button.

The WQSDB will return a table that lists the designated uses and waterbodies that you selected. You can click on the field headings to get more information about the field definitions. Take some time to explore these headings.

Waterbody Entity ID	Waterbody Name	State DU Code	State DU Name	State DU Description	State Specific DU Name	Class Code
ID17060305CL052	AMERICAN RIVER - EAST FORK AMERICAN RIVER TO MOUTH	COLD	Cold Water Aquatic Life	Water quality appropriate for the protection and maintenance of a viable aquatic	maintenance of aquatic life for cold water species.	
ID17060305CL052	AMERICAN RIVER - EAST FORK AMERICAN RIVER TO MOUTH	COLD	Cold Water Aquatic Life	Water quality appropriate for the protection and maintenance of a viable aquatic	protection of aquatic life for cold water species.	
ID17060305CL052	AMERICAN RIVER - EAST FORK AMERICAN RIVER TO MOUTH	DWS	Domestic Water Supply	Water quality appropriate for drinking water supplies.	drinking water supply.	
ID17060201SL078	ALTURAS LAKE	A	Aesthetic	This use applies to all surface waters of the state.	aesthetic.	
ID17060305CL052	AMERICAN RIVER - EAST FORK AMERICAN RIVER TO MOUTH	A	Aesthetic	This use applies to all surface waters of the state.	aesthetic.	
ID17060201SL075	ALTURAS LAKE CREEK - ALTURAS LAKE TO MOUTH	A	Aesthetic	This use applies to all surface waters of the state.	aesthetic.	

7. If any data within the fields are highlighted in blue, this means that the table could not fit all the text within its boundaries. Click on one and it will open a window to show the full text. Close any pop-up boxes that appear after you are done looking at them.
8. Once you have looked at your results, click the **Back** button on your internet browser. Click the **Reset** button to clear your previous query.

9. The WQSDB also allows you to search for a particular waterbody. In the “Waterbody Name” text box, type in a waterbody name that interests you. Click on the radio button labeled “**Containing**”. Now click on the **Run Report** button.

Choose the waterbodies for this report using one of these two methods:
Either enter a partial or complete Waterbody Name into the input window below,

Waterbody Name:

Beginning with ☐ Exact match ☐ **Containing** ☒

Or, select all waterbodies by clicking on "All Waterbody Names" or click on one or more waterbody names. Use the scroll down bar or type the first letter of a Waterbody Name to move down the list.

Waterbody Name:

All Waterbody Names
 AGENCY CREEK - COW CREEK TO DIVERSION (T19N, R24E, SEC. 28)
 AGENCY CREEK - DIVERSION (T19N, R24E, SEC. 28) TO MOUTH
 AGENCY CREEK - SOURCE TO COW CREEK
 ALDER CREEK - SOURCE TO MOUTH
 ALEXANDER RESERVOIR (BEAR RIVER)
 ALKALI CREEK - SOURCE TO MOUTH
 ALLISON CREEK - SOURCE TO MOUTH
 ALLISON CREEK - SOURCE TO WEST FORK ALLISON CREEK
 ALLISON CREEK - WEST FORK ALLISON CREEK TO MOUTH

Press the Run Report button to generate the selected records. To clear all selections press the Reset button.

10. The WQSDB will return a list of waterbody names that contain the text you entered (if there is more than one). Click on one of the waterbody names. *Note:* If you enter text for a waterbody name that is not contained in the WQSDB for that state, you will get an error message. Enter a different waterbody name and try again.

IdahoWaterbody and Designated Use Data

These are the matching Waterbody Names found in the database. Click on one of the Waterbody Names below to run the Waterbody Information Report.

Waterbody Name
AGENCY CREEK - COW CREEK TO DIVERSION (T19N, R24E, SEC. 28)
AGENCY CREEK - DIVERSION (T19N, R24E, SEC. 28) TO MOUTH
AGENCY CREEK - SOURCE TO COW CREEK

11. If you have a printer available, go to the **File** menu in your web browser and select **Print**. Since you are trying to print a table, change your print “Properties” or “Print set up” to landscape. This will help ensure that no data are cut off or lost during your print job.

Comparing State Designated Uses

In instances where surface waters cross state boundaries, retrieving water quality data from multiple states could be vital to decision making. You can use the WQSDB to query designated uses across states.

1. Use the **Back** button to return to the list of WQSDB reports, or go to <http://www.epa.gov/wqsdatabase/wqsreports.html>. Select the **Designated Use and Waterbody Data Across States** report.
2. Select “**ND**” and “**SD**” from the State drop down menu. Then select “**Public Water Supply**” from the scroll down Designated Use Category list. Click the **Run Report** button.

Your results should look like the following table. This report lists how each state defines their Public Water Supplies (PWS). South Dakota refers to PWS as “Domestic Water Supply Waters” and North Dakota as “Municipal and Domestic”. Notice that ND returns more records than SD. This is because ND is a “class” state. A class state divides their designated uses into several categories.

Designated Use Information Across States							
Click on:							
<ul style="list-style-type: none"> • the linked values in the State DU Code column to get the related Waterbody Information. • the State DU Description to get the expanded text. • the State Class Description to get the expanded text. 							
State Code	State DU Code	State DU Name	State DU Description	State Specific DU Name	Class Code	Class Description	Effective Date
SD	1	Domestic Water Supply Waters	A beneficial use assigned to surface waters of the state which are suitable for				JAN 01, 1997
ND	MD	Municipal and Domestic	Waters that are suitable for use as a source of water supply for drinking and cui		2	Waters capable of supporting growth and propagation of nonsalmonid fishes and ma	FEB 01, 1991
ND	MD	Municipal and Domestic	Waters that are suitable for use as a source of water supply for drinking and cui		3	Waters capable of supporting growth and propagation of nonsalmonid fishes and as	FEB 01, 1991

➤ Now click on the **State DU Code** for South Dakota. The code for SD is the number **1**.

This will return a table containing every surface water in the state that is designated as “Domestic Water Supply Waters”.

South Dakota Waterbody Information

State DU Code: 1

State DU Name: Domestic Water Supply Waters

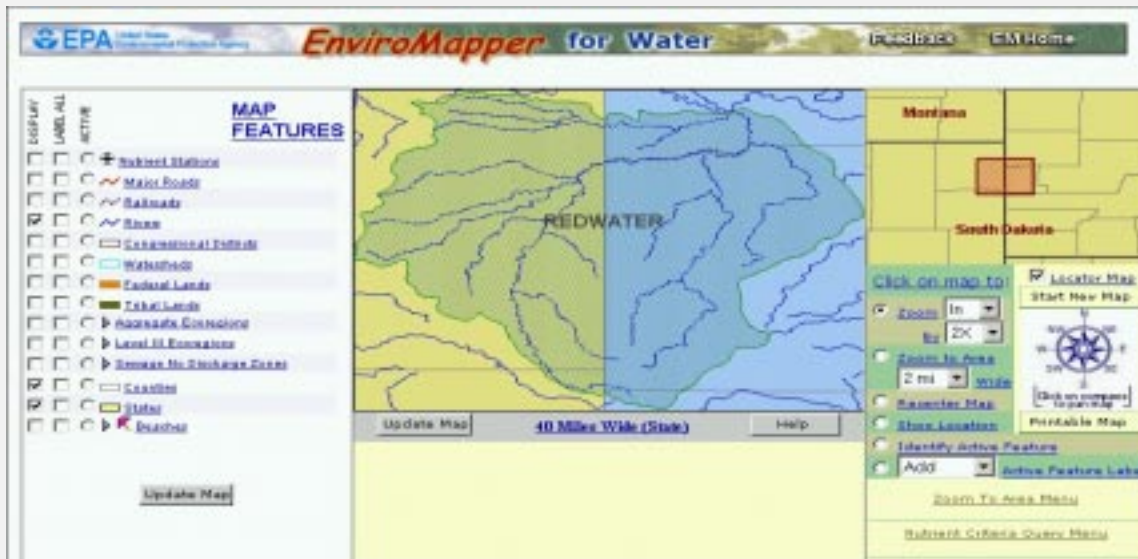
Click on the HUC link to view EnviroMapper.

Waterbody Entity ID	Waterbody Name	National Waterbody Type	Salt Water	Seasonal	Segment Description	HUC
SD-BF-0002-1999	ALKALI CREEK	Stream	0	0		10120202
SD-BF-0041-1999	SPEARFISH CREEK	Stream	0	0		10120203
SD-BF-0043-1999	SPEARFISH CREEK	Stream	0	0		10120203
SD-BF-0047-1999	WARD DRAW CREEK	Stream	0	0		10120203
SD-BS-0002-1999	BIG SIOUX RIVER	Stream	0	0		10170203
SD-BS-0003-1999	BIG SIOUX RIVER	Stream	0	0		10170202

Notice you are given a specific waterbody name, waterbody entity ID, waterbody type, and a HUC code. The HUC code provides a geographic reference for the waterbody. The HUC code is derived from the National Hydrography Dataset. If you click on a HUC code it will connect you to the EPA’s EnviroMapper for Water. This way you can view any particular waterbody of interest.

1. Click on the HUC code for **Spearfish Creek** as seen in the table above. The HUC code is **10120203**.

Notice you are zoomed directly to the watershed or HUC that contains Spearfish Creek.



Note: EnviroMapper has a tutorial available that will assist users.

2. Click the **Back** button to return to the WQSDB.

Comparing State and National Designated Uses

You can use the WQSDB to generate a report that compares National designated uses to state designated uses. Since states define their own uses, they may differ from a National use defined by EPA. For example, a state may refer to Public Water Supply as Domestic Water Supply. The Public Water Supply use is known at a National level and Domestic Water Supply is recognized at a state level. So, at any time a particular state use is not clear, you can compare it to a National Use to get a better understanding of what the state is trying to protect.

1. Use the **Back** button to return to the list of WQSDB reports, or go to <http://www.epa.gov/wqsdatabase/wqsreports.html>.
2. Click on the **Designated Use and Class Data by National DU** report link.
3. Select a **State** that you wish to compare its Designated Uses to a National level.

The report you have created will list all the Designated Uses that pertain to your state of interest. It will also show you how those Designated Uses are defined at a National level.

South Dakota Designated Use (DU) Information by National DU							
Sorted by State DU Code and State Class							
Effective Date: JAN 01, 1997							
Click on the State DU Description to get the expanded text. Click on the State Class Description to get the expanded text.							
National DU Name	National Specific DU Name	State DU Code	State DU Name	State DU Description	State Specific DU Name	Class Name	Class Description
Public Water Supply	Domestic Supply (drinking water, culinary and food processing)	1	Domestic Water Supply Waters	A beneficial use assigned to surface waters of the state which are suitable for		(no data)	(no data)
Agricultural	Irrigation	10	Irrigation Waters	A beneficial use assigned to surface waters of the state which are suitable for		(no data)	(no data)
Hydropower Generation	Hydropower Generation	11	Commerce and Industry Waters	A beneficial use assigned to surface waters of the state which are suitable for		(no data)	(no data)
Industrial	Process (related to manufacturing of non-food products)	11	Commerce and Industry Waters	A beneficial use assigned to surface waters of the state which are suitable for		(no data)	(no data)

1. Take some time to click on the **Field Headings** to get a better understanding of the report produced.
2. Investigate some the individual **State DU Description** for your state of interest. Read how a state defines its DU's then look at the National Definition for that DU.

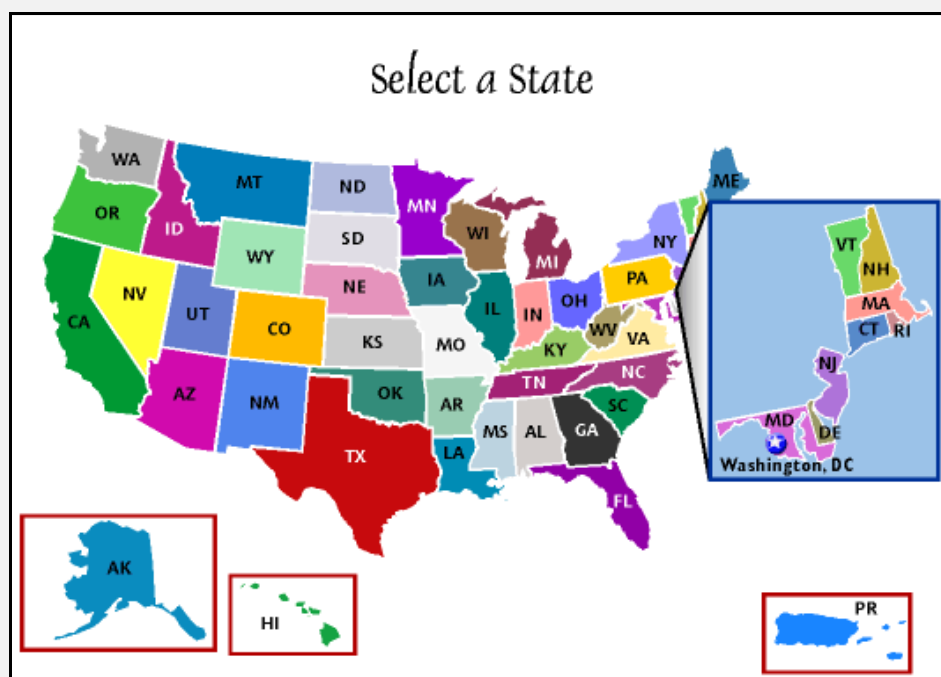
Downloading a WQS Document from the Repository

Every several years, states are required to update their water quality standards. States will evaluate the condition of their surface waters and set forth designated uses. These standards set forth by States and Tribes help identify water quality problems and their contributors. The standards set forth will influence and be directly tied to several other water quality programs, such as 305(b) Assessments, 303(d) listed impaired waters, TMDLs, non-point source grants, etc. From the WQSDB you can view, download, and print the most current EPA - approved WQS document for any state of interest.

1. Navigate back to the WQSDB home page: <http://www.epa.gov/wqsdatabase>
2. From the home page click on the “**Repository of Water Quality Standards Documents**” menu.



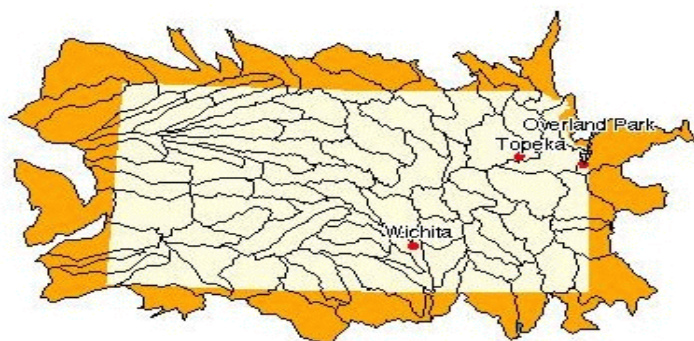
3. Click on a state of interest from the following map:



4. You will then see a window appear that is similar to the one below:

Repository of Documents

Kansas



Water Quality
Standards for
Kansas

Features

[Tribal Video](#)

[Academy](#)

Water Quality Criteria

[Aquatic Life](#)

[Human Health](#)

[Biological](#)

[Nutrient](#)

[Microbial \(Pathogen\)](#)

[Wetlands](#)

Adobe Acrobat Reader is required to view PDF documents. The most recent version of the [Adobe Acrobat Reader](#) is available as a free download. An [Adobe Acrobat plug-in for assisted technologies](#) is also available.

[Entire Document](#) - (PDF, 8.9M)

(Effective June 1, 1999) Includes the complete compilation of water quality standards related documents.

[Kansas Surface Water Register](#) - (PDF, 5.2M)

(Effective June 1, 1999) Contains listing of classified waters in Kansas.

5. Now click on the any of the following documents that are listed below your state of interest. All the documents are related to Water Quality Standards. Take some time to open some of these documents and view them. To close a PDF and view another you must use the **Back** button.

NOTE: Click on the [Adobe Acrobat Reader](#) link to download a free version of the software.

Notice that every document has an approval date. This date reflects when a states' WQS document has been approved by EPA.

6. You can save a WQS PDF document two ways. You can right click on the document link on the web page and choose **Save Target As** or you can open the document in Adobe and click the save button



7. When you are through exploring the available Water Quality Standards documents for your state of interest, you can click on the “**Back to Water Quality Standards Homepage**” found at the bottom of the page and this will return you to the national map.
8. In addition to having WQS documents for states, the WQSDB also has documents for national Indian Tribes and U.S. Territories. Click on the drop down box below the National map entitled “**Tribal Water Quality Standards**” or “**U.S. Territory Water Quality Standards**” as seen below:

Tribal Water Quality Standards:
Confederated Salish and Kootenai Tribes of the Flathead Indian Reservation (PDF, 10MB) ▼
U.S. Territory Water Quality Standards:
Virgin Islands (PDF, 762KB) ▼

Use the remaining class time to experiment with the features you learned about during the course of this tutorial, or feel free to return to the WQSDB home page and examine the other links that are available.